

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of:)	
Anthony Walter Anson et al.)	
)	
Serial No.: Not yet assigned)	Examiner: Not yet assigned
)	
Filed: January 28, 2002)	
)	Art Unit: Not yet assigned
For: SURGICAL IMPLANTS AND)	
DELIVERY SYSTEMS)	
THEREFOR)	
)	

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January 28, 2002

"Express Mail" Mailing-Label Number: EL705610572US

Honorable Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

PRELIMINARY AMENDMENT

In the Specification:

Page 1, before line 1, insert the following"

--Related Application

This application is a continuation of Serial No. 09/214,683,
filed 08/16/1999, now Patent _____.

Background of the Invention--

Page 3, after line 11, insert

--Summary of the Invention--;

Page 9, after line 20, insert

--Brief Description of the Drawings--;

Page 10, above the third line from the bottom, insert

--Description of the Preferred Embodiments--.

In the Claims:

Cancel claim 1 to 23 and insert the following new claims.

24. (New) A stent for surgical implantation into a patient, said stent including a wire which is expandable from a relatively straightened state for introduction into the patient, to an occluding anchor part in which the wire has adopted a series of turns extending over the cross-sectional area of the occluding anchor part, and wherein the wire turns in said occluding anchor part are of (a) cycloidal form producible by displacing individual turns of a cylindrical helix laterally in different directions so that they are substantially coplanar, or (b) spiro-cycloidal form producible by displacing individual turns of a tapering helix laterally in different directions and so that they are substantially coplanar.

25. (New) A stent as claimed in claim 24, wherein the wire is formed of a shape memory effect material and is self-expanding into its occluding state above a predetermined trigger temperature.

26. (New) A stent as claimed in claim 24, wherein the wire is formed of a superelastic material which is resiliently biased towards its occluding state and which can be retained in its relatively straightened state.

27. (New) A stent as claimed in claim 24, wherein the wire, in its occluding state, also defines another anchor part which is spaced from the occluding anchor part and joined thereto by a linking part.
28. (New) A stent as claimed in claim 27, wherein said another anchor part is of wire having a series of turns extending laterally relative to the linking part.
29. (New) A stent as claimed in claim 28, wherein the wire turns extend over the cross-sectional area of said another anchor part.
30. (New) A stent as claimed in claim 28, wherein the wire turns of said another anchor part are not aligned with the wire turns of said occluding anchor part in the direction of separation of the anchor parts.
31. (New) A stent as claimed in claim 24, wherein the wire turns in said another anchor part are of substantially conical form, of scroll or spiral form, of cycloidal form producible by displacing individual turns of cylindrical helix laterally in different directions so that they are substantially coplanar or of spiro-cycloidal form producible by displacing individual turns of a tapering helix laterally in different directions and so that they are substantially coplanar.
32. (New) A stent as claimed in claim 24, wherein at least part of the wire is coated with a pharmacological coating.
33. (New) A stent as claimed in claim 32, wherein the coating is of a protein that initiates blood clotting and cell adhesion.
34. (New) A stent as claimed in claim 24, wherein at least part of the wire has a roughened surface.

35. (New) A delivery system for placement of a stent, said system comprising:
- a stent for surgical implantation into a patient, said stent including a wire which is expandable from a relatively straightened state for introduction into the patient. To an occluding state wherein the wire defines an occluding anchor part in which the wire has adopted a series of turns extending over the cross-sectional area of the occluding anchor part, and wherein the wire turns in said occluding anchor part are [of cycloidal or spiro-cycloidal form] of (a) cycloidal form producible by displacing individual turns of a cylindrical helix laterally in different directions and so that they are substantially coplanar, or (b) spiro-cycloidal form producible by displacing individual turns of a tapering helix laterally in different directions and so that they are substantially coplanar;
 - a catheter containing or adapted to contain said stent in its relatively straightened state;
 - an elongated flexible placement member extending or being adapted to extend longitudinally of said catheter and having proximal and distal ends;
 - and releasable connection means connecting or being adapted to connect the distal ends of the placement member with the stent.

36. (New) A releasable connector for releasably interconnecting first and second parts, said connector comprising first and second connector regions adapted to be secured to the first and second parts, respectively, wherein the first connector region has a shape memory effect and is changeable from a first state to a second state above a predetermined trigger temperature, said first state being one in which the first connector region is adapted to hold the first part and the second state being one in which the first connector region is adapted to release the first part so as to enable the first and second parts to be disconnected.

37. (New) A releasable connector as claimed in claim 36, wherein the first connector region comprises a first bush part which is adapted, in its first state, to receive and hold the first part.

38. (New) A releasable connector as claimed in claim 36 and 37, wherein the second connector region comprises a second bush part which is adapted to receive and hold the second part when the first connector region is in both of its first and second states.

39. (New) A stent for surgical implantation into a patient, said stent including a wire which is expandable from a relatively straightened state for introduction into the patient, to an occluding state wherein the wire defines two spirally wound anchor parts interconnected by a link part, the spiral windings of said spirally wound anchor parts being wound in the opposite sense and having central axes which are laterally displaced from one another.

40. (New) A releasable connector releasably interconnecting a stent with a member for delivering the stent to the required body region, said connector comprising first and second connector regions adapted to be secured to said stent and said member, respectively, wherein the first connector region has a shape memory effect and is changeable from a first state to a second state above a predetermined trigger temperature, said first state being one in which the first connector region is adapted to hold said stent and the second state being one in which the first connector region is adapted to release said stent so as to enable said stent and said member to be disconnected, and wherein said stent includes a wire which is expandable from a relatively straightened state for introduction into the patient, to an occluding state wherein the wire defines an occluding anchor part in which the wire has adopted a series of turns extending over the cross-sectional area of the occluding anchor part, and wherein the wire turn in said occluding anchor part of (a) cycloidal form producible by displacing individual turns of a cylindrical helix laterally in different directions so that they are substantially coplanar, or (b) spiro-cycloidal form producible by displacing individual turns of a tapering helix laterally in different directions and so that they are substantially coplanar.

41. (New) A releasable connector as claimed in claim 40, wherein the first connector region comprises a first bush part which is adapted, in its first state, to receive and hold the stent.

42. (New) A releasable connector as claimed in claim 41, wherein the second connector region comprises a second bush part which is adapted to receive and hold said member when the first connector region is in both of its first and second states.

REMARKS

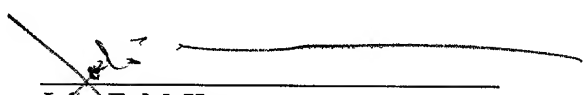
We are enclosing corrected formal drawings. The corrections are the same ones made in the allowed parent application.

The above amendments address minor formal matters and further distinguish the claims from the prior art cited in the parent application.

Actions on the merits is requested.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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